

(19) Weltorganisation für geistiges Eigentum
Internationales Büro



(43) Internationales Veröffentlichungsdatum
8. Januar 2004 (08.01.2004) ✓

PCT

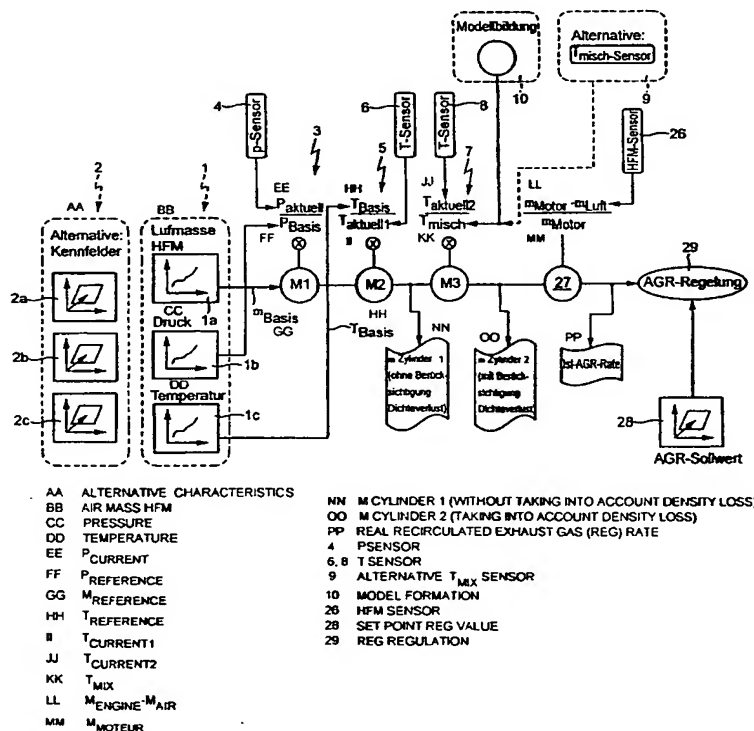
(10) Internationale Veröffentlichungsnummer
WO 2004/003364 A1 ✓

- (51) Internationale Patentklassifikation⁷: F02D 21/08 (72) Erfinder; und
(21) Internationales Aktenzeichen: PCT/EP2003/005095 (75) Erfinder/Anmelder (nur für US): BARBA, Christian [CH/DE]; Böhmerwaldweg 23, 70736 Fellbach (DE). DIETZ, Martin [DE/DE]; Kirchsteige 5, 70329 Stuttgart (DE). MOLL, Günter [DE/DE]; Urbacher Strasse 24, 70374 Stuttgart (DE).
(22) Internationales Anmeldedatum: 15. Mai 2003 (15.05.2003)
(25) Einreichungssprache: Deutsch (74) Anwalt: KOCHER, Klaus-Peter; DaimlerChrysler AG, Intellectual Property Management, IPM - C106, 70546 Stuttgart (DE).
(26) Veröffentlichungssprache: Deutsch
(30) Angaben zur Priorität: 102 29 620.0 29. Juni 2002 (29.06.2002) DE (81) Bestimmungsstaat (national): US.
(71) Anmelder (für alle Bestimmungsstaaten mit Ausnahme von US): DAIMLERCHRYSLER AG [DE/DE]; Epplestrasse 225, 70567 Stuttgart (DE). (84) Bestimmungsstaaten (regional): europäisches Patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR).

[Fortsetzung auf der nächsten Seite]

(54) Title: METHOD FOR DETERMINING THE QUANTITY OF RECIRCULATED EXHAUST GAS

(54) Bezeichnung: VERFAHREN ZUR BESTIMMUNG DER ABGASRÜCKFÜHRMENGE



(57) Abstract: The invention relates to a method for determining the quantity of recirculated exhaust gas for an internal combustion engine recirculating exhaust gas. According to the inventive method, first a reference quantity of gas mixture that is fed to the combustion chamber/s of the engine and a reference pressure and/or a reference temperature of the gas mixture are determined for at least one preselectable reference condition of the internal combustion engine when exhaust gas recirculation is deactivated. The pressure and/or temperature of the fed gas mixture is/are then determined for the current engine condition when exhaust gas recirculation is activated and the engine runs. The current fed quantity of gas mixture is then determined based on the reference quantity corrected at least by the ratio between the current pressure and the reference pressure of the gas mixture and/or the ratio between the reference temperature and the current temperature of the gas mixture. Additionally, a proportion of unburned gas contained in the fed gas mixture is determined for the current engine

condition, whereupon the current quantity of recirculated exhaust gas is determined based on the difference between the determined current quantity of gas mixture and the determined proportion of unburned gas. The inventive method applies to diesel engines of motor vehicles, for example.

[Fortsetzung auf der nächsten Seite]

WO 2004/003364 A1